



Combined Data Sheet

Wednesday, October 24, 2007

KRATON® G-1652

Kraton Polymers LLC - *Styrene Ethylene Butylene Styrene Block Copolymer*

Unit System:

English ☒

Actions

Legend (Open)

**General Information****Product Description**

KRATON® G1652 is a clear, linear triblock copolymer based on styrene and ethylene/butylene with a polystyrene content of 30%. KRATON G1652 is used as a modifier of bitumen and polymers. It is also suitable as an ingredient in formulating compounds for footwear applications and may be used in formulating adhesives, sealants, and coatings.

General

| | |
|--------------------------|---|
| Material Status | • Commercial: Active |
| Availability | • North America |
| Test Standards Available | • ASTM |
| Additive | • Antioxidant |
| Features | • Antioxidant • Copolymer |
| Uses | • Adhesives • Footwear • Coating Applications • Sealants |
| Appearance | • Clear |
| Forms | • Pellets |
| Processing Method | • Compression Molding • Film, Cast |

ASTM and ISO Properties ¹

| Physical | Nominal Value | Unit | Test Method |
|--|---------------|----------------|-------------|
| Density - Specific Gravity | 0.910 | sp. gr 23/23°C | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (230°C/5.0 kg) | 5.0 | g/10 min | ASTM D1238 |
| Elastomers | Nominal Value | Unit | Test Method |
| Tensile Stress @ 300% | 700 | psi | ASTM D412 |
| Tensile Str @ Yield Elast | 4500 | psi | ASTM D412 |
| Elongation @ Yield Elast | 500 | % | ASTM D412 |
| Hardness | Nominal Value | Unit | Test Method |
| Durometer Hardness (A Scale) | 69 | | ASTM D2240 |

Additional Properties

Solution Viscosity, BAM 922: 400 to 525cps
 Antioxidant Content, BAM 929: 0.03 to 0.1%w
 Styrene/Rubber ratio, No standard: 30/70%
 Polystyrene Content, BAM 919: 29 to 30.8%w
 Volatile Matter, BAM 907: 0.6%w
 Total Extractables, BAM 905: 1%w

Notes

¹ Typical properties: these are not to be construed as specifications.



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Kraton® D1101 (SBS) Linear Block Copolymer

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Subcategory: Elastomer, TPE; Polymer; Thermoplastic

Material Notes:

(SBS) styrene-butadiene-styrene block polymer. KRATON® Polymers require no premastication or vulcanization. They can be blended with thermoplastic polymers and significantly improve the impact qualities of the material, both at room and low temperature. This KRATON polymer meets FDA regulations as articles or as ingredients in articles intended for food contact. FDA clearances vary from one grade to another. For specific clearances, letters of certification will be provided on request.

Applications: modified asphalts, thermoplastic and thermoset polymer modification, adhesives, sealants, coatings, sporting goods, film, and general elastomer compounding.

Information provided by the manufacturer, Kraton® Polymers.

[Click here](#) to view available vendors for this material.

New New suppliers have been added for this product during 2007! The list of suppliers can be seen by clicking the truck icon to the upper right or the text link just above.

| Physical Properties | Metric | English | Comments |
|----------------------|----------------|----------------|--|
| Specific Gravity | 0.94 g/cc | 0.034 lb/in³ | |
| Brookfield Viscosity | 4000 cP | 4000 cP | Toluene solution at 25°C (77°F). Neat polymer concentration, 25%w. |
| Melt Flow | Max 1 g/10 min | Max 1 g/10 min | |

Mechanical Properties

| | | | |
|----------------------------|-----------|----------|--|
| Hardness, Shore A | 69 | 69 | 10 seconds. Typical values on polymer compression molded at 150°C (300°F). |
| Tensile Strength, Ultimate | 31.72 MPa | 4600 psi | Tensile tester jaw separation 10 in/min (25.4 cm/min). Typical properties based on film cast from toluene solution.; ASTM D412 |
| Elongation at Break | 880 % | 880 % | Tensile tester jaw separation 10 in/min (25.4 cm/min); ASTM D412 |
| 300% Modulus | 2.76 GPa | 400 ksi | |

Electrical Properties

| | | | |
|------------------------|------------------------|------------------------|----------------|
| Electrical Resistivity | 1e+014 - 1e+016 ohm-cm | 1e+014 - 1e+016 ohm-cm | at 23°C (74°F) |
| Dielectric Strength | 11.81 - 39.37 kV/mm | 300 - 1000 kV/in | at 23°C (74°F) |

Thermal Properties

| | | | |
|-------------------|--------|---------|--|
| Glass Temperature | -80 °C | -112 °F | |
|-------------------|--------|---------|--|



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Kraton® D1102 (SBS) Linear Block Copolymer

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Subcategory: Elastomer, TPE; Polymer, Thermoplastic

Material Notes:

(SBS) styrene-butadiene-styrene block polymer. KRATON® Polymers require no premastication or vulcanization. They can be blended with thermoplastic polymers and significantly improve the impact qualities of the material, both at room and low temperature. This KRATON polymer meets FDA regulations as articles or as ingredients in articles intended for food contact. FDA clearances vary from one grade to another. For specific clearances, letters of certification will be provided on request.

Applications: modified asphalts, thermoplastic and thermoset polymer modification, adhesives, sealants, coatings, sporting goods, film, and general elastomer compounding.

Information provided by the manufacturer, Kraton® Polymers.

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New **Now** New suppliers have been added for this product during 2007! The list of suppliers can be seen by clicking the truck icon to the upper right or the text link just above.

| Physical Properties | Metric | English | Comments |
|------------------------------|------------------------|--------------------------|--|
| Specific Gravity | 0.94 g/cc | 0.034 lb/in ³ | |
| Brookfield Viscosity | 1200 cP | 1200 cP | Toluene solution at 25°C (77°F). Neat polymer concentration, 25%w. |
| Melt Flow | 11 g/10 min | 11 g/10 min | |
| Mechanical Properties | | | |
| Hardness, Shore A | 66 | 66 | 10 seconds. Typical values on polymer compression molded at 150°C (300°F). |
| Tensile Strength, Ultimate | 31.72 MPa | 4600 psi | Tensile tester jaw separation 10 in/min (25.4 cm/min). Typical properties based on film cast from toluene solution.; ASTM D412 |
| Elongation at Break | 880 % | 880 % | Tensile tester jaw separation 10 in/min (25.4 cm/min); ASTM D412 |
| 300% Modulus | 2.76 GPa | 400 ksi | |
| Electrical Properties | | | |
| Electrical Resistivity | 1e+014 - 1e+016 ohm-cm | 1e+014 - 1e+016 ohm-cm | at 23°C (74°F) |
| Dielectric Strength | 11.81 - 39.37 kV/mm | 300 - 1000 kV/in | at 23°C (74°F) |
| Thermal Properties | | | |
| Glass Temperature | -80 °C | -112 °F | |



Prospector

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Combined Data Sheet

Tuesday, October 23, 2007

KRATON® D-4271

Kraton Polymers LLC - Styrene Butadiene Styrene Block Copolymer

Unit System: ☒ English ☐ SI

Actions

[Legend \(Open\)](#)

General Information

Product Description

KRATON® D-4271 polymer is an oil-extended branched block copolymer based on styrene and butadiene, with bound styrene in the neat polymer of 45% mass. It contains 50phr non-staining paraffinic oil which is classified as non hazardous. Information on the CAS and EINECS registry numbers of the paraffinic oil used for this grade is available on request. KRATON D-4271 polymer is used for formulating compounds for footwear and general purpose applications and as a modifier of bitumen.

General

| | |
|----------------------------|---|
| Material Status | <ul style="list-style-type: none"> Commercial: Active |
| Availability | <ul style="list-style-type: none"> Europe Pacific Rim |
| Test Standards Available | <ul style="list-style-type: none"> ASTM ISO |
| Bound Styrene (ASTM D5775) | <ul style="list-style-type: none"> 44.0 to 46.0 % |
| Features | <ul style="list-style-type: none"> Copolymer |
| Uses | <ul style="list-style-type: none"> Footwear General Purpose |
| Forms | <ul style="list-style-type: none"> Pellets |
| Processing Method | <ul style="list-style-type: none"> Film, Cast Injection Molding |

ASTM and ISO Properties ¹

| Physical | Nominal Value | Unit | Test Method |
|--|---------------|-------------------|-------------|
| Density | 0.938 | g/cm ³ | ISO 1183 |
| Bulk Factor | 0.40 | | ASTM D1895 |
| Melt Mass-Flow Rate (MFR) (200°C/5.0 kg) | 11 | g/10 min | ISO 1133 |
| Elastomers | Nominal Value | Unit | Test Method |
| Tensile Stress at 300% | 0.290 | ksi | ISO 37 |
| Tensile Stress at Yield | 2320 | psi | ISO 37 |
| Tensile Strain at Break | 1000 | % | ISO 37 |
| Hardness | Nominal Value | Unit | Test Method |
| Shore Hardness (Shore A) | 71 | | ISO 868 |

Additional Properties

The value listed as Density, ISO 1183, was tested in accordance with ISO 2781.
 Bound Styrene, KM03: 44 to 46%mass
 Volatile Matter, KM04: 0.3%mass
 Ash Content, ISO 247 B: 0.15 to 0.45%mass
 Total Extractables, KM05: 32.5 to 35.5%mass
 Antioxidant Content, KM08: 0.2%mass
 Melt Flow, ISO 1133, 200 °C/5kg: 8 to 13g/ 10 min
 Hardness, ISO 868, Shore A: 69 to 73
 Abrasion, DIN 53516: 160mm³

Notes

¹ Typical properties: these are not to be construed as specifications.